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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,165	02/19/2004	Donald L. Schilling	I-2-0049.4US	4996
24374 7590 04/25/2008 VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103				
EXAMINER				
SANTILAGO CORDERO, MARIVELISSE				
ART UNIT		PAPER NUMBER		
2617				
MAIL DATE		DELIVERY MODE		
04/25/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,165

Applicant(s)

SCHILLING, DONALD L.

ExaminerMARIVELISSE SANTIAGO-
CORDERO**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the Information Disclosure Statement (IDS) filed on 2/19/2004 have been considered.

Specification

2. The disclosure is objected to because of the following informalities: the term PCN (first used in paragraph [0014]) is an acronym, which can mean different things and/or change in meaning over time; hence, it would be desirable to write out the actual words to which the acronym refers. Appropriate correction is required.

Claim Objections

3. Claim 5 is objected to because of the following informalities: the dependency of the claim is missing. For examination on the merits and in order to be consistent with claim terminology, claim 5 will be assumed to depend from claim 2. Appropriate correction is required.
4. Applicant is advised that should claims 11, 12, and 14 be found allowable, claims 32-37 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 29, 31, 36, and 38 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites the limitation “the frequencies” in line 3 and “the combined signal” in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Claims 31 and 36 recites the limitation “the adjustable notch filters” in line 2. There is insufficient antecedent basis for this limitation in the claim; note that claim 29, from which claims 31 and 36 depend, claims “adaptive notch filters”.

Claim 38 recites the limitation “the frequencies” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,243,370.

Claims 1-19 of the instant application are anticipated by patent claims 1-19, respectively, in that claims 1-19 of the patent contains all the limitations of claims 1-19 of the instant application. Therefore, claims 1-19 of the instant application are not patentably distinct from the earlier patent claims and as such are unpatentable for obvious-type double patenting. Claims 1-19 of the instant application are broader in every aspect than the patent claims and are therefore an obvious variant thereof.

9. Claims 20-39 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,407,989 (cited in IDS filed on 2/19/2004).

Claims 20-39 of the instant application are anticipated by patent claims 1-20, respectively, in that claims 1-20 of the patent contains all the limitations of claims 20-39 of the instant application. Therefore, claims 20-39 of the instant application are not patentably distinct from the earlier patent claims and as such are unpatentable for obvious-type double patenting. Claims 20-39 of the instant application are broader in every aspect than the patent claims and are therefore an obvious variant thereof.

10. Claims 40-45 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,711,145.

Claims 40-45 of the instant application are anticipated by patent claims 1-6, respectively, in that claims 1-6 of the patent contains all the limitations of claims 40-45 of the instant application. Therefore, claims 40-45 of the instant application are not patentably distinct from

Art Unit: 2617

the earlier patent claims and as such are unpatentable for obvious-type double patenting. Claims 40-45 of the instant application are broader in every aspect than the patent claims 1-6, respectively, and are therefore an obvious variant thereof.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIVELISSE SANTIAGO-CORDERO whose telephone number is (571)272-7839. The examiner can normally be reached on Monday through Friday from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Trost/
Supervisory Patent Examiner, Art Unit 2617

/MARIVELISSE SANTIAGO-CORDERO/
Examiner, Art Unit 2617